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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,735	04/08/2004	Michael E. Ring	MER 04069	1527

7590 09/11/2006  
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EXAMINER

LE, MARK T

ART UNIT PAPER NUMBER

3617

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/821,735	RING, MICHAEL E.	
	Examiner	Art Unit	
	Mark T. Le	3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on August 15, 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. This communication is responsive to the amendments filed on August 7, 2006.

Applicant's amendments and arguments have been carefully considered.

2. In claim 1, line 12, "said body" and "said end of train" lack antecedent basis.

Correction is required. "said body" should be changed to -- said body portion --; and "said end of train" should be changed to -- said EOT device --.

3. Claims 1-3, 5-7, 11- 13 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Digitrax, pages 25-38 and 95-97 in view of Grapp (US 6,159,069).

Digitrax, page 96, section 7.13, describes a model railroad vehicle, similar to that recited in the instant claims, including a decoder for controlling lighting effects, as listed in Table 7-8, page 96 of Digitrax, which includes FRED (EOT device). Digitrax, page 28, Figures 3-4, shows right and left pick-ups that establish an electrical interconnection between the decoder and the multiple axles of the vehicle. It is noted that the decoder of Digitrax is a control system in an electronic circuit that controls the EOT device; wherein, the decoder being a portion of the electronic circuit is disposed on the locomotive base structure, which is then mounted on the vehicle's truck, as shown in Figure 3-4 of Digitrax; therefore, the decoder of Digitrax is readable as being disposed at least on a truck, as claimed. It is noted that Digitrax does not specifically show the FRED (EOT device).

Grapp discloses an EOT device that is releasably secured to the end of a railway car.

In view of Grapp, it would have been obvious to one skilled in the art to use an EOT device, similar to that of Grapp, in Digitrax because Digitrax does not specifically show an EOT device.

Regarding the instant claimed "electronic circuit being disposed only on ... a combination of said truck and said body of said end of train", as recited in part (c) of instant claim 1, note that said combination is readable as including the truck and the body portion of the EOT device; and since said combination is not being restricted to consist of only the truck and the body portion, said combination is also readable to include other elements, such as the structure upon which the decoder of Figure 3-4 of Digitrax is mounted. Accordingly, the decoder (electronic circuit) of Digitrax is readable as being disposed "only on" said combination, as broadly claimed.

Regarding instant claim 2, note that the decoder of Digitrax is readable as being small enough such that it is capable of being mounted in the manner as claimed.

Regarding instant claim 3, consider Figures 3-4, page 28 of Digitrax.

Regarding instant claim 5, note that the decoder of Digitrax is readable as "surface mounted", as claimed.

Regarding the size of the circuit board, as recited in instant claim 6, it is not considered to be patentably significant because it would have been obvious to one skilled in the art to reduce the size of the electronic circuit of Digitrax as small as needed to save space.

Regarding the instant claimed control being in the form of analog, note that electrical signals in the forms of analog and digital are well known alternatives (Official

Notice is taken), and it would have been obvious to one skilled in the art to alternatively use analog as the control signals in Digitrax so as to be compatible with other conventional analog devices.

4. Claims 4, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 above, and further in view of Stan Ames et al's guide to DCC, pages 29-30.

Digitrax is applied above.

Regarding the instant claimed components of the electronic circuit, as recited in instant claims 4, 8 and 10, note that the instant claimed components are well known, note for example, section 3.2.1 Decoder Basics of Stan Ames's guide to DCC. Accordingly, it would have been obvious to one skilled in the art to include such well known components in the decoder of Digitrax for performing the expected functions thereof.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 above, and further in view of Wolf (US 2003/0015626).

Regarding the instant claimed use of electrical filters, as recited in instant claim 9, it is note that electrical filters are well known to conditioning electrical currents in electrical circuits, note for example Figure 4A of Wolf. Accordingly, it would have been obvious to one skilled in the art to use electrical filters in the electrical circuit of Digitrax to perform the expected function thereof.

6. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 above, and further in view of Miller (US 5,174,216).

Regarding the instant claimed device for activating a train accessory being in the form of a magnetic device or Hall effect device, as recited in instant claim 14-15, consider the Hall effect device 10 of Miller. In view of Miller, it would have been obvious to one skilled in the art to alternatively use a Hall effect device to activate an accessory of Digitrax, i.e. the light, in a manner similar to that taught by Miller, because such Hall effect device is reliable and easy to setup.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 above, and further in view of Young et al (US 2003/0155470).

Regarding the instant claimed light element being an LED, note that light elements in the form of LEDs are well known. Note for example, LED 46 of Young. Therefore, it would have been obvious to one skilled in the art to use a well known LED as the light element of Digitrax so as to achieve the expected advantages thereof.

8. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 above, and further in view of Ireland (US 6,513,763)

As to the instant claimed electrical power being in the form of a battery, note that the use of a battery as an alternative power source is well known, note for example line 26, column 1 of Ireland. Therefore, it would have been obvious to one skilled in the art to use a battery as an alternative power source in the structure of Digitrax so as to achieve expected advantages thereof, e.g. batteries are safer than some other power sources.

9. As to Applicant's argument directed to the new limitation provided in part (c) of claim 1, it is noted that such limitation is still not specific enough to define the instant

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claimed invention over the combination of the references, as set forth above.

Specifically, note that the combination, recited in part (c) of claim 1, is readable as including the truck and the body portion of the EOT device; and since said combination is not being restricted to consist of only the truck and the body portion, said combination is also readable as including other elements, such as the structure upon which the decoder of Figure 3-4 of Digitrax is mounted. Accordingly, the decoder (electronic circuit) of Digitrax is readable as being disposed "only on" said combination, as broadly claimed.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark T. Le whose telephone number is 571-272-6682. The examiner can normally be reached on Mon-Fri (9-6), except day-off Wed.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Mark T. Le  
Primary Examiner  
Art Unit 3617

mle  
9/7/06